

PATENT ABSTRACTS OF JAPAN

(11)Publication number : 04-133808

(43)Date of publication of application : 07.05.1992

(51)Int.Cl.

B60C 23/02

B60C 23/20

(21)Application number : 02-256002

(71)Applicant : BRIDGESTONE CORP

(22)Date of filing : 26.09.1990

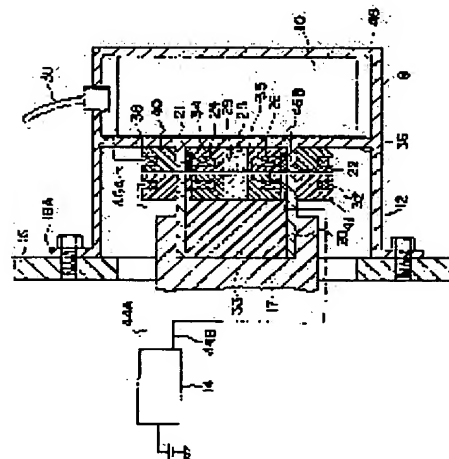
(72)Inventor : HODATE MASAHIRO

(54) TIRE INSIDE MONITOR DEVICE

(57)Abstract:

PURPOSE: To shorten the length of a linking device in a tire inside monitor device by concentrically arranging transmitting and electricity receiving coils also receiving and electricity supplying coils in the same plane respectively, and electromagnetically shielding between signal transmission coil and power supply coil groups.

CONSTITUTION: An outer cylinder 18 formed with aluminum and an inner cylinder 20 having a diameter smaller than that of the outer cylinder 18 are formed in a linking device 12 linking the rotation and the nonrotation sides of a tire inside monitor device. An aluminum-made cylindrical coil winding body 22 is formed on a partition wall 36, an electricity receiving coil 24 wound on a resin-made bobbin 34 is housed on the inner side of the coil winding body 22, also a resin-made bobbin 40 winding a transmitting coil 38 is fixed to the outer periphery of the coil winding body 22, and these coils 24 and 38 are concentrically arranged in the same plane. Moreover a electricity supplying coil 26 wound on a resin-made bobbin 35 is housed on the inner side of the inner cylinder 20, also a resin-made bobbin 41 winding a receiving coil 32 having the same diameter as the transmitting coil 38 is fixed to the outer periphery of the inner cylinder 20, and these coils 26 and 32 are concentrically arranged in the same plane.



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PATENT ABSTRACTS OF JAPAN

(11)Publication number : 09-005178

(43)Date of publication of application : 10.01.1997

(51)Int.Cl.

G01L 3/10

G08C 17/02

(21)Application number : 07-156481

(71)Applicant : HITACHI LTD

(22)Date of filing : 22.06.1995

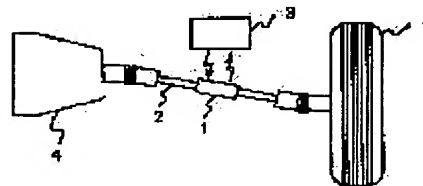
(72)Inventor : IBAMOTO MASAHIKO
SUZUKI MASAYOSHI
UENO SADAYASU

(54) TORQUE DETECTION SYSTEM

(57)Abstract:

PURPOSE: To provide a torque sensor high in reliability and functionality.

CONSTITUTION: Power is sent non-contact into a sensor section 1 provided on a rotor 2 and the results of measurement are read in a non-contact manner. A microwave is irradiated from a measuring section 3 beside the rotor 2 and the sensor section 1 takes energy from the power so that a measuring signal is sent back to the measuring section 3 as radio wave. The sensor section 1 on the rotor 2 is made up of a semiconductor chip and a peripheral part alone and is arranged independently from outside to be molded completely. This eliminates malfunctioning attributed to poor contact or the like thereby obtaining a highly reliable sensor. The sensor section is made so small and light to be mounted on a narrow part thus far impossible to be done and information on the number of revolutions or the like can be detected together with a torque thereby obtaining a functional compound sensor.



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(11)Publication number : 10-019710

(43)Date of publication of application : 23.01.1998

(51)Int.Cl.

G01L 17/00

B60C 23/02

G08C 17/02

(21)Application number : 08-172675

(71)Applicant : YOKOHAMA RUBBER CO LTD:THE

(22)Date of filing : 02.07.1996

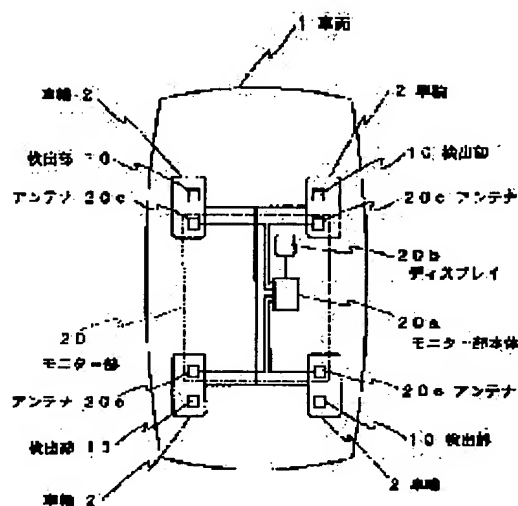
(72)Inventor : HATTORI YASUSHI

(54) DEVICE FOR MONITORING AIR PRESSURE IN TIRE OF VEHICLE

(57)Abstract:

PROBLEM TO BE SOLVED: To provide a device for monitoring air pressure in a tire of a vehicle having a plurality of wheels such as four wheels or six wheels, etc., by which the air pressure in a tire can be inspected easily.

SOLUTION: A detection part 10 for detecting air pressure in a tire is provided to the wheel side of a vehicle, and an antenna 20c is provided to the body side in such a manner that it is opposite to the detection part 10, and further a monitoring part 20 is provided to such a position where a driver in a driving seat can recognize visually. Power supply energy is given the detection part 10 through electromagnetic waves from the monitoring part 20, and the detection part 10 sends the detection result to the monitoring part 20 through electromagnetic waves. The electromagnetic waves are received by the reception part of the monitoring part 20, and the detection results concerning air pressures in the respective tires are indicated on the monitor panel of a display 20b and an alarm is given in an emergency.



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(11)Publication number : 11-238193

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(51)Int.Cl. G08C 17/00
G01C 9/00
G08B 25/00
H04B 1/16

(21)Application number : 10-054297

(71)Applicant : MATSUE ANZEN SHOKAI:KK
SHINKU FUJII:KK
TECHNO BRAIN:KK

(22)Date of filing : 19.02.1998

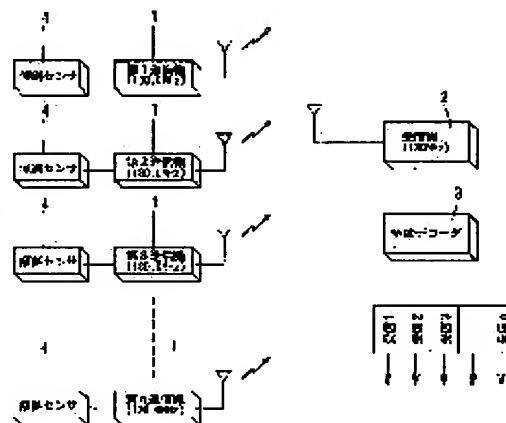
(72)Inventor : ASANO TOMIO
FUJII MICHITAKE
ITO TOSHIMITSU

(54) DATA COMMUNICATION METHOD AND DEVICE THEREFOR

(57)Abstract:

PROBLEM TO BE SOLVED: To enable one receiver to manage data from transmitters, receiver by receiver, by allowing the receiver to receive carriers from respective transmitters and then distribute and process the received data for every transmitter based on the data for identification.

SOLUTION: The respective transmitters 1 send the data individually with radio waves of the same frequency and the receiver 2 receives the carriers from the transmitters 1. The receiver 2 classifies the data from the respective transmitters 1 mixed in the received carriers for every transmitter 1 through a multiplexing decoder 3 provided on the side of the receiver 2, distributes the receive data for every transmitter 1, and checks the data. Tilt sensors 4 are provided on the sides of the transmitters 1 and abnormality of the attitude of a worker who carries a transmitter 1 and works in a common ditch, a tunnel, a building, etc., is detected as an abnormal tilt of the transmitter 1 on the side of the receiver 2 at the remote place according to data from the tilt sensor 4 to specify the worker on the side of the receiver 2 and generates an alarm.



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(11)Publication number : 64-060118

(43)Date of publication of application : 07.03.1989

(51)Int.Cl.

H04L 1/02

H04B 7/10

(21)Application number : 62-216749

(71)Applicant : HOCHIKI CORP

(22)Date of filing : 31.08.1987

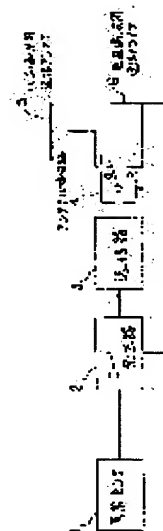
(72)Inventor : SHIMA YASUSHI

(54) RADIO TRANSMISSION EQUIPMENT

(57)Abstract:

PURPOSE: To obtain receiving effect with a polarization diversity even in case of small power radio transmission or the transmission of a weak wave by alternately switching the transmission of a code signal with an antenna for horizontal polarization and an antenna for vertical polarization by a transmitter every one word of the code signal at least.

CONSTITUTION: A code generator 2 generates the code signal while a detecting signal is obtained from an abnormality sensor 1 and the generation of the code signal is stopped when the detecting signal is turned off from the abnormality sensor 1. An antenna switching circuit 4 is alternately changed over between switching positions (a) and (b) in each one word of the code signal outputted from the code generator 2. For example, when the antenna switching circuit 4 is in the switching position (a) side, a feeding is executed to a transmission antenna 5 for horizontal polarization and the transmission is executed as the horizontal polarization. Then, the antenna switching circuit 4 is changed over to the switching position (b) side by the code signal of the next one word and the transmission is executed as the vertical polarization form a transmission antenna 6 for vertical polarization. Thus, even in case of the transmission by the weak power, the receiving condition to be practically equal with the polarization diversity system can be obtained.



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 B60T 8/34
 G08C 17/02
 G08C 19/00
 G08C 23/02
 G08C 23/04
 // G01P 3/487
 G01P 3/488

(21)Application number : 11-339588

(71)Applicant : NTN CORP

(22)Date of filing : 30.11.1999

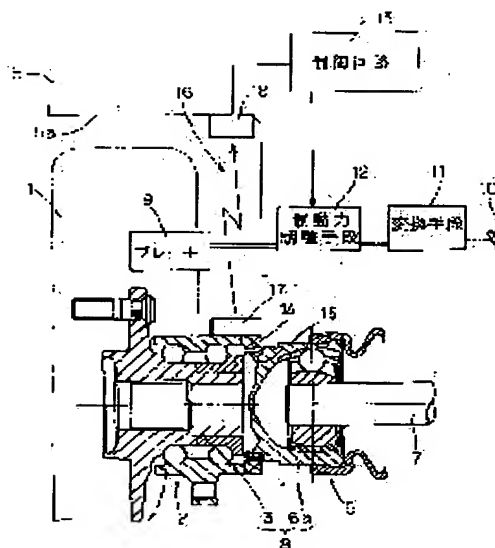
(72)Inventor : OKADA KOICHI

(54) ANTILOCK BRAKING SYSTEM

(57)Abstract:

PROBLEM TO BE SOLVED: To provide an antilock braking system that involves no fear of disconnection on the automobile exterior and promotes a reduction in the weight and cost of the automobile.

SOLUTION: A vehicle body 5 has a control circuit 13 for controlling the braking force of a brake 9 on the basis of detection signals showing wheel rotating speed. A rotary member 8 for a wheel 1 is mounted with a pulser ring 15, in opposition to which a sensor 14 for speed detection is mounted on a wheel support member 4. The output of the sensor 14 is transmitted by means of wireless transmitting means 16 that consist of a transmitting section 17 arranged on the wheel support member 4 and a receiving section 18 disposed on the vehicle body 5. The wireless transmitting means 16 may employ transmission by magnetic coupling, light such as infrared rays, or ultrasonic waves other than radio waves.



1:車輪 6:車速自在継手 15:パルスリング
 2:車軸軸受 9:制動部材 16:ワイヤレス伝達手段
 3:ハブ軸 4:ブレーキ 17:送信部
 4:車輪支持部材 18:受信部 19:送信部
 5:車体 14:センサ

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(51)Int.Cl.

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B60B 35/18

B60T 8/00

F16C 19/52

G08C 17/02

(21)Application number : 2000-241207

(71)Applicant : NTN CORP

(22)Date of filing : 09.08.2000

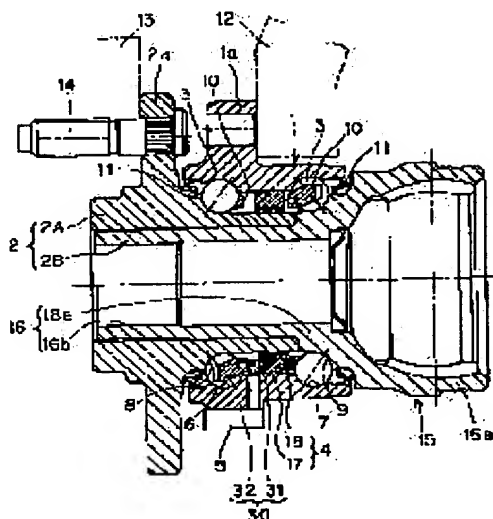
(72)Inventor : OTSUKI HISASHI
OKADA KOICHI
SAHASHI KOJI
SUZUMURA KENICHI
HOZUMI KAZUHIKO

(54) BEARING DEVICE FOR WHEEL

(57)Abstract:

PROBLEM TO BE SOLVED: To attain a reduction in size, avoidance of complicated wiring around a bearing, and improvement in sealing property of the bearing while retaining rotating speed detecting function, and to dispense with the connecting work of a generator stator to a transmitting means to reduce the manpower of assembling.

SOLUTION: This bearing device comprises an outer member 1 having double row rolling faces 6 and 7 on the inside surface, an inner member 2 having rolling faces 8 and 9 opposed to the rolling faces 6 and 7, and a double row rolling body 3. The outer member 1 integrally has a body mounting flange 1a on the circumference, and the inner member 2 has a wheel mounting flange 2a at one end. This device further comprises a generator 4 formed of the stator 17 mounted on the bore part of the outer member 1 and a rotor 18 mounted on the inner member 2 and used also as a rotation sensor; the transmitting means 5 for wirelessly transmitting the electric signal from the generator provided on the outer surface of the outer member 1; and a connector 30 for connecting the transmitting means 5 to the stator 17 in a single operation.



1: 外方部材
2: 内方部材
2A: フランジ付部材
2E: 軸の内端部材
3: 転動体
4: 発電機
5: ワイヤレスの送信手段
7: ステータ
8: ロータ
30: コネクタ
31: シェット
32: プラグ
33: 径方向孔

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(43)Date of publication of application : 21.12.2001

(51)Int.Cl.

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B21C 51/00
// G08C 19/38

(21)Application number : 2000-175822

(71)Applicant : DAINIPPON PRINTING CO LTD

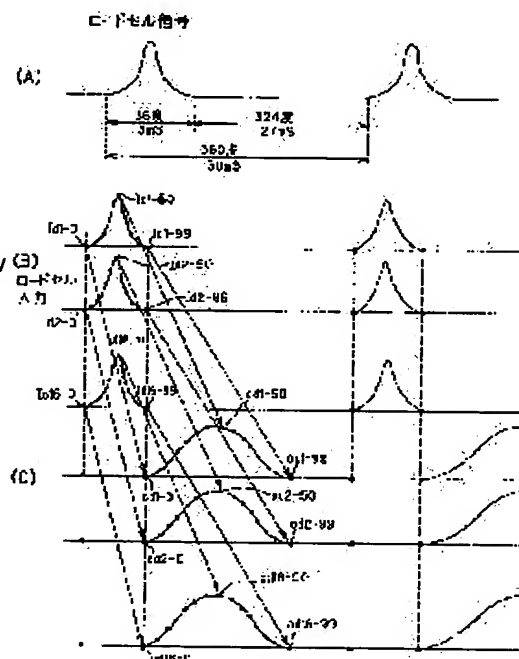
(22)Date of filing : 12.06.2000

(72)Inventor : HOSHINO MASARU

(54) PRESSURE DETECTION SYSTEM USING SIGNAL TRANSMISSION DEVICE AND PRESSURE DETECTING ROLL**(57)Abstract:**

PROBLEM TO BE SOLVED: To provide a pressure detection system capable of surely transmitting a pressure detection signal outputted in parallel from a pressure detecting roll, the value of which is changed on time, while preventing the influence of noise, and simplifying a signal transmission system.

SOLUTION: The output signal of load cells buried in a row in the pressure detecting roll are sampled in the period where the load cells make contact with a strip, or only in the period where the pressure detecting roll has a prescribed rotating angle, and a serial transmission is performed at a transfer rate slower than the sampling rate in the residual period up to the next sampling. The sampling data of the output signals of the load cells is transmitted from the rotating side to the stationary side in this way.

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